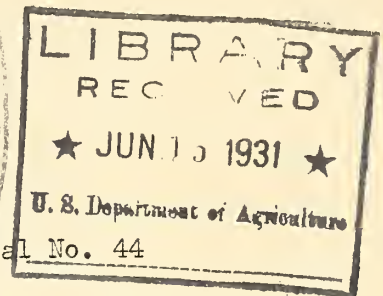
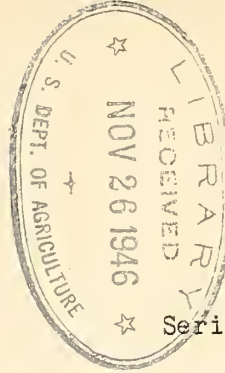


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Excerpt from a radio talk by  
W. W. Vincent, chief, western district,  
Food and Drug Administration, U. S.  
Department of Agriculture, broadcast  
through KGO, San Francisco, and associated  
N.B.C. stations, June 11, 1931



## HOW TO READ THE LABEL

### Baking Powder

A leavening agent is that substance which makes food products light. As applied to baked products the leavening agents include yeast, baking powder, and baking chemicals. The ultimate result accomplished by all is the same, that is, they produce carbon dioxide and this, as evolved within the dough, causes expansion of the mass. As the heat of baking is applied the gas expands, producing a rather light or porous mass which tends to become rigid as the moisture evaporates and the proteins coagulate. The more gas produced, the fluffier and lighter the resulting baked product.

Baking powder is the leavening agent produced by the mixing of an acid-reacting material and sodium bicarbonate, with or without starch or flour. It yields not less than 12% available carbon dioxide. The acid reacting materials in baking powder may be (1) tartaric acid or its acid salts, such as cream of tartar, known as potassium acid tartrate; (2) the acid salts of phosphoric acid; (3) compounds of aluminum; and (4) any combination of the products mentioned.

In most baking powders will be found a certain percentage of flour or starch. These are fillers used for the purpose of standardizing the strength of the powder. They serve a further useful purpose in that they help to keep the reacting chemicals apart and dry.

Some manufacturers of baking powder incorporate small quantities of egg albumen into their product. Such albumen has no appreciable leavening or nutritive value. Its use originated through the desire of manufacturers to have their product appear as containing larger amounts of gas than were actually present. The so-called cold-water test will determine the presence of albumen. Where egg albumen is present in the baking powder and the test is performed, the egg albumen tends to coat the gas bubbles and thus hold the gas evolved. Baking powder containing egg albumen or dried white of egg will have the presence of such declared upon the label. Just remember it contributes nothing of value to the particular powder. Also remember that in all baking powders to be found upon the market, the carbon dioxide is obtained from bicarbonate of soda which is the only carbonate that is permitted in baking powder. That is the baking soda you have in your pantries and which, when added to sour milk, reacts in the same way as is the case where present in the baking powder. The lactic acid in sour milk reacts with the bicarbonate and releases the carbon dioxide.

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Now, for the "Read-the-Label" information. The government standard

requires 12% of available carbon dioxide gas to be present in baking powders. Some labels bear declaration of the available gas present and therefore, as you know the minimum requirement is 12%, and should the labels specify 15 or 20%, you are able to evaluate which may be the better buy. Look for the net contents-statement, too. All baking powder containers bear a net weight statement. If you have a preference for phosphate powder, or cream of tartar powder, check the label. From that you may be able to determine if you are getting what you desire.

In a tartrate baking powder, the label will probably indicate the presence of either tartaric acid or potassium bitartrate or cream of tartar. If a phosphate powder is desired, see if either calcium or sodium acid phosphate or sodium phosphate is listed among the ingredients, or note if the single word, "phosphate," appears. In the case of so-called alum powder, the words, "sodium aluminum sulphate," or "sodic aluminic sulphate," or "soda alum," all mean the same thing.

Various residues are left in baked products as a result of using certain baking powders. Every baking powder leaves a residue, but these residues are not considered harmful by food authorities, in the amounts usually found in the baked product. Therefore, where you see a statement, on a label or in other advertising material, such as "Entirely Free" from certain named residues such as Rochelle Salts, phosphates, or alum, you can be assured that the statement---while true---doesn't necessarily indicate a product superior to other good ones. Likewise, the statements, "Absolutely Pure," "Absolute Purity Guaranteed," "Highest Quality," are usually plain advertising.

Ammonium carbonate, or bicarbonate, is often used by large manufacturers of certain types of cookies. This ammonium carbonate or bicarbonate, <sup>is</sup> not in use as a component of baking powders. When it is incorporated into the dough and heat applied, the material decomposes into two gases, ammonia and carbon dioxide, both of which serve as leavening agents. This material leaves no residue, but if a slight excess of ammonia is present and remains in the baked product, it gives the material a disagreeable taste and odor. This product, therefore, enjoys a rather restricted use.